Virginia Title V Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, '10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-305 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	King George Landfill, Inc.
Facility Name:	King George County Landfill
Facility Location:	Along State Route 665, approximately 1.1 miles north of State Route 3 and approximately 9 miles east of Fredericksburg
Registration Number:	40903
Permit Number:	FSO40903

_____
Effective Date

_____
Dennis H. Treacy
Director, Department of Environmental Quality

_____
Signature Date

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1. Facility Information

Permittee/Facility Name
King George Landfill, Inc.
King George County Landfill
10376 Bullock Drive
King George, VA 22485

Responsible Official
Tim Schotsch
District Manager
540-775-3123

Contact person
D, Richard Guidry
Regional Compliance Manager
(804) 363-3313

Facility Description: SIC Code 4953 - This facility consists of a municipal solid waste landfill and recycling center that is covered by a VADEQ Solid Waste Permit No. 586 and a VADEQ State Operating Permit dated January 19, 2001 for air emissions. The solid waste permit lists the landfill as authorized to accept municipal solid waste, commercial, industrial and institutional wastes, CDD, incinerator ash and other types of waste. It is anticipated that incinerator ash could account for up to 50% of waste accepted on an annual basis.

2. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Stack ID	Pollutant Controlled	Applicable Permit Date
L01	Municipal Solid Waste Landfill (See (1) Below)	27,200,000 Mg, see (2) below	Open & Enclosed Flares	OF-1 EF-1	OF-1 EF-1	NMOC	January 19, 2001
L02	Landfill Surface & Roads	–	–	–	–	–	–

(1) The landfill first began accepting waste in November, 1996 and is projected to have capacity for 50 years and remain open until 2047. Currently, all emissions are fugitive since a collection and control system has not yet been installed.

(2) Landfill capacity taken from Title V application.

III. Landfill Requirements - (Emission Unit L01)

The following terms and conditions, are from 40 CFR Part 60 Subpart WWW and existing State Operating Permit dated January 19, 2001. As used in this section, all terms shall have the meaning as defined in 40 CFR 60.2 and 40 CFR 60.751.

A. Limitations

1. No later than June 1, 2001, the permittee shall have installed an active collection and control system that captures gas generated within the landfill. The system shall collect gas from each area, cell, or group of cells in the landfill in which solid waste has been in place for a period of five years or more if active or two years or more if closed or at final grade. The active collection system shall be designed to facilitate future expansion so that the maximum expected gas flow rate from the entire area of the landfill will be accommodated. The system shall collect gas at a sufficient extraction rate to meet all operational requirements. The system shall be designed to minimize off-site migration of subsurface gas.
(9 VAC 5-50-310, 9 VAC 5-50-410, 40 CFR 60.752(b)(2)(ii), 40 CFR 60.753(a), Condition 9 of 01/19/01 Permit)

2. The collection system shall route all collected gas to an open flare until such time that there is sufficient gas flow for the proper operation of an enclosed flare(s). After start-up of the enclosed flare, the open flare will only be used as a back up. The open flare shall be designed and operated in accordance with 40 CFR 60.18. All enclosed flares shall reduce NMOC emissions by 98% (by weight) or reduce the outlet NMOC concentration to less than 20 ppmv, dry basis as hexane @ 3% oxygen. A control system involving the use of anything other than enclosed flares or an open flare may require a permit prior to installation. The flares shall be provided with adequate access for inspection.
(9 VAC 5-50-310, 9 VAC 5-50-410, 9 VAC 5-50-260, 40 CFR 60.752(b)(2)(iii), Conditions 4 and 7 of 01/19/01 Permit)

3. The permittee shall operate the collection system such that negative pressure is maintained at each active wellhead except in case of fire or increased well temperature. Additionally, the permittee shall operate each interior, active wellhead in the collection system such that the gas temperature is less than 55°C and with either a nitrogen level less than 20% or an oxygen level less than 5%. The permittee may establish a higher operating temperature, nitrogen, or oxygen value at a

particular well, provided that supporting data demonstrates that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
(9 VAC 5-50-410, 40 CFR 60.753(b), 40 CFR 60.753(c))

4. The permittee shall operate the collection system such that methane concentrations at the surface of the landfill are less than 500 ppm above background conditions at the landfill.
(9 VAC 5-50-410, 40 CFR 60.753(d))

5. The permittee shall operate the system such that all collected gases are routed to the flare control devices. In the event that either the collection system or control device(s) are inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of gas to the atmosphere shall be closed within one hour.
(9 VAC 5-50-410, 40 CFR 60.753(e))

6. The permittee shall operate the flare(s) at all times when collected gas is routed to the control devices.
(9 VAC 5-50-410, 40 CFR 60.753(f))

7. The provisions for oxygen, nitrogen, temperature, surface methane concentrations and control efficiency apply at all times except during periods of start up, shut down, or malfunction provided that the duration of start up, shut down, or malfunction shall not exceed five days for the collection system and shall not exceed one hour for the open and enclosed flare control devices.
(9 VAC 5-50-410, 40 CFR 60.755(e), Condition 14 of 01/19/01 Permit)

8. When calculating emissions from the landfill for purposes of determining Prevention of Significant Deterioration (PSD) applicability, the permittee shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels using procedures found in the most recent version of AP-42 or other procedures approved by the administrator.
(9 VAC 5-50-410, 40 CFR 60.754(c))

9. The permittee shall install each well or design component as was specified in the collection and control design plan. Wells shall be installed in cells no later than sixty days after the date on which the initial solid waste placed in the cell or group of cells has

been there for a period of five years or more if active or two years or more if closed or at final grade.
(9 VAC 5-50-410, 40 CFR 60.755(b))

10. All open flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of five minutes during any two consecutive hours.
(9 VAC 5-50-410, 40 CFR 60.18(c)(1))

11. All open flares shall be designed for and operated with an exit velocity less than sixty feet per second.
(9 VAC 5-50-410, 40 CFR 60.18 (c)(4)(i))

12. The net heating value of gas being routed to the open flare(s) shall be at least 200 Btu/standard cubic foot.
(9 VAC 5-50-410, 40 CFR 60.18 (c)(3)(ii))

13. The approved fuel for the open and enclosed flares is landfill gas. Natural gas or LP gas may be used as fuel for the pilot. A change in fuels may require a permit to modify and operate.
(9 VAC 5-170-160, Condition 3 of 01/19/01 Permit)

14. The enclosed flare and open flare combined shall consume no more than 3.27×10^9 cubic feet of LFG per year, calculated monthly as the sum of each consecutive twelve month period.
(9 VAC 5-170-160, Condition 6 of 01/19/01 Permit)

15. Emissions from the operation of the enclosed flare system shall not exceed the limits specified below:

Non Methane Organic Compounds (as hexane)	5.0 lbs/hr	21.93 tons/yr
Nitrogen Oxides (as NO_2)	10.3 lbs/hr	45.1 tons/yr
Carbon Monoxide	22.1 lbs/hr	96.6 tons/yr
Sulfur Dioxide	4.67 lbs/hr	20.4 tons/yr

After completion of the initial performance test of the enclosed flare, should the operator of the MSW Landfill Facility, owner or permittee and the Fredericksburg Office of the DEQ determine that results of emissions testing performed in accordance with Subpart WWW (40 CFR 60.754) or by other acceptable means indicate a more accurate characterization of emissions rates from the permitted LFG Collection and Control System, the operator of the MSW Landfill Facility, owner or permittee may submit an application for modification of this permit to reflect such more accurate emissions characterization.
(9 VAC 5-50-180, 9 VAC 5-50-260, Condition 7 of 01/19/01 Permit)

16. Visible emissions from the enclosed flare(s) shall not exceed twenty percent opacity as determined by EPA Method 9 (40 CFR 60 Appendix A), except during one six-minute period in any one hour in which visible emissions shall not exceed 27 percent opacity. This condition applies at all times except during start-up, shutdown, and malfunction.
(9 VAC 5-50-260, Condition 8 of 01/19/01 Permit)

17. The permittee shall not be required to expand the gas collection system as required in 40 CFR 60.755(a)(3) during the first 180 days after startup of the collection system.
(40 CFR 60.755(a)(4))

18. Except where this permit is more restrictive than the applicable requirement, the permittee shall operate the landfill and the gas collection system in accordance with the applicable section of the New Source Performance Standard (NSPS) of 40 CFR 60, Subpart WWW, and the general provisions in 40 CFR 60 Subpart A.
(9 VAC 5-50-400, 9 VAC 5-50-410, 9 VAC 5-80-110)

B. Monitoring

1. The permittee shall measure gauge pressure in the header at each individual active well monthly. If a positive pressure exists, corrective action shall be taken within five calendar days of the exceedance. If a negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the system shall be expanded within 120 days of the initial measurement of positive pressure. A negative pressure shall be maintained at all wells except in event of a landfill fire, increased temperature in a well indicating the possibility of a fire, a geomembrane or synthetic cover is used at the landfill and the occurrence of a positive pressure is detailed in the collection and control design plan, or at wells that have been approved by

the administrator for decommissioning. Any attempt to correct an observed positive pressure shall not cause exceedances of other operational or performance standards. An alternative timeline for corrective measures to be implemented may be submitted to DEQ, Fredericksburg Office, for approval.
(9 VAC 5-50-410, 40 CFR 60.755(a)(3), 40 CFR 60.753(b), Condition 15 of 01/19/01 Permit)

2. The permittee shall monitor each active well monthly for temperature and either nitrogen or oxygen as provided in 40 CFR 60.753(c) to determine if excess air is infiltrating the landfill. If a well exceeds one of the operating parameters listed in **Limitations - Condition 3**, action shall be initiated to correct the exceedance within five calendar days. If correction of the exceedance cannot be achieved within fifteen calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempt to correct an observed positive pressure shall not cause exceedances of other operational or performance standards. An alternative timeline for corrective measures to be implemented may be submitted to the DEQ, Fredericksburg Office, for approval.
(9 VAC 5-50-410, 40 CFR 60.755(a)(5), Condition 15 of 01/19/01 Permit)

3. The permittee shall monitor surface concentrations of methane around the entire perimeter of the collection area, along a pattern that traverses the landfill at thirty meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographic map with the monitoring route and the rationale for any site-specific deviations from the thirty meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. Surface methane monitoring shall be conducted on a quarterly basis for each collection area for which waste has been in place for two or more years if closed or at final grade or for which waste has been in place for five or more years if active.
(9 VAC 5-50-410, 40 CFR 60.753(d), 40 CFR 60.755(c)(1), Condition 15 of 01/19/01 Permit)

4. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the actions specified below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements.

(a) The location of the exceedance shall be marked and recorded;

(b) The permittee shall perform cover maintenance or make adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of the exceedance. The location shall be re-monitored within ten calendar days of detecting the exceedance.

(c) If re-monitoring of the location shows a second exceedance, the permittee shall take additional corrective action and shall re-monitor the location again within ten days of the second exceedance. If the re-monitoring shows a third exceedance for the location, the permittee shall install a new well or other collection device within 120 calendar days after the initial exceedance as is specified in paragraph (e) of this condition.

(d) Any location that initially shows an exceedance but, ten days later, upon re-monitoring for a second time has a methane concentration less than 500 ppm above background shall be re-monitored for a third time one month from the initial exceedance. If the one month re-monitoring shows a concentration less than 500 ppm above the background, no further monitoring of that location is required until the next quarterly monitoring. If the one month re-monitoring shows another exceedance, the permittee shall repeat the requirements of either paragraph (c) or paragraph (e) of this condition.

(e) For any location where the monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or collection device may be submitted, along with a timeline to DEQ, Fredericksburg Office.

(9 VAC 5-50-410, 40 CFR 60.755(c)(4), Condition 15 of 01/19/01 Permit)

5. The permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
(9 VAC 5-50-410, 40 CFR 60.755(c)(5), Condition 15 of 01/19/01 Permit)
6. The permittee shall install at each wellhead a sampling port and either a thermometer or a port for temperature measurements. The permittee shall measure at each individual wellhead on a monthly basis the gauge pressure, the temperature and either the nitrogen or oxygen concentration of the landfill gas.

(9 VAC 5-50-410, 40 CFR 60.756(a), Condition 15 of 01/19/01 Permit)

7. The permittee shall install, calibrate, maintain, and operate according to manufacturer specifications the following equipment for the temporary open flare:

   (a) A heat sensing device at the flame to indicate the continuous presence of a flame;

   (b) A flow rate measuring device that shall record gas flow to the flare at least every fifteen minutes or secure the bypass line valve around the flare in the closed position with a lock and key. If the bypass valve is secured with a lock, a visual inspection of the lock shall be performed at least once every month to ensure that the valve remains closed.

   (9 VAC 5-50-410, 40 CFR 60.756(c), Condition 15 of 01/19/01 Permit)

8. The permittee shall install, calibrate, maintain, and operate according to manufacturer specifications the following equipment for the enclosed flare(s):

   (a) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of "1 percent of the temperature being measured in degrees Celsius (or Fahrenheit), or "0.5 EC (" 0.9 EF) whichever is greater.

   (b) A device that records flow to or bypass of the control device. The permittee shall either:

      1. Install, calibrate, and maintain a gas flow rate measuring device that shall record the total flow of landfill gas at the common header pipe that leads to the control device(s) at least every fifteen minutes; or

      2. Secure the bypass line valve around the flare(s) in the closed position with a lock and key. If the bypass valve is secured with a lock, a visual inspection of the lock shall be performed at least once every month to ensure that the valve remains closed.

   (9 VAC 5-50-410, 9 VAC 5-80-110.E, 40 CFR 60.756(b), Condition 15 of 01/19/01 Permit)

9. Emissions shall be controlled by proper operation and maintenance of the landfill gas collection and control system equipment. The permittee shall develop, maintain, and make available to all operators good operating procedures (in a written or electronic format) and a maintenance schedule for the LFG collection and control system. These procedures shall be based on the manufacturer's recommendations, at a minimum.

Operating procedures and a maintenance schedule for all such equipment shall be established and made available to the DEQ, Fredericksburg Office, for review. All records required by this condition shall be on site for the most current five-year period and made available for inspection by the DEQ, Fredericksburg Office.
(9 VAC 5-40-20 E, Condition 20 of 01/19/01 Permit)

C. Record Keeping

1. The permittee shall record and have on hand for inspection purposes instances when positive pressure was allowed to develop in a well in an effort to avoid an underground fire.
(9 VAC 5-50-410, 40 CFR 60.753(b)(1))

2. The permittee shall develop and have on hand for inspection purposes a surface monitoring design plan that includes a topographical map with the monitoring route and the rationale for any site specific deviations from the thirty meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.
(9 VAC 5-50-410, 40 CFR 60.753(d))

3. The permittee shall keep up-to-date, readily accessible records over the life of the control equipment of the data listed below as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of five years. Records of the control device vendor specifications shall be maintained until the equipment is removed.

   (a) The landfill's maximum expected gas generation flow rate as calculated in ' 60.755(a)(1).

   (b) The landfill's density of wells, horizontal collectors, and surface collectors.

   (c) The average combustion temperature of the enclosed flare(s) when burning landfill gas measured at least every fifteen minutes and averaged over the same time period as the performance test.

   (d) For the enclosed flare(s), the percent reduction of NMOC achieved by the flare(s) during the most recent performance test(s) when burning landfill gas.

(e) For the open flare, a description of the flare type (i.e., steam-assisted, air assisted, or non-assisted); all visible emission readings; heat content determinations; flow rate or bypass flow rate measurements; exit velocity determinations made during the initial performance test as specified in ' 60.18; continuous records of the flare flame or pilot flame monitoring; and records of all periods of operations during which the flare flame is absent.

(9 VAC 5-50-410, 40 CFR 60.758(b))

4. The permittee shall keep for five years up-to-date, readily accessible continuous records of the following equipment operating parameters specified for monitoring:

(a) wellhead gauge pressures measured on a monthly basis

(b) wellhead temperatures measured on a monthly basis

(c) wellhead nitrogen or oxygen concentrations measured on a monthly basis

(d) flow to or bypass of the control device, through either:

1) gas flow rate to the control device every 15 minutes; or

2) monthly visual inspections of the bypass line valve lock.

(e) presence of flame in open flare and periods of time when not present

(f) temperature of enclosed flare(s)

(g) all three-hour periods of enclosed flare operation during which the average combustion temperature was more than 28 EC below the average combustion temperature observed during the most recent performance test

(h) results of quarterly surface methane monitoring.

(9 VAC 5-50-410, 9 VAC 5-80-110.F, 40 CFR 60.758(c))

5. The permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system. This map shall provide a unique identification location label for each collector. Any areas of the landfill containing asbestos or non-degradable waste such as incinerator ash shall be delineated on the map if they are to be excluded from the collection system. Records of the nature, date of deposition and amount deposited shall be accessible. Additionally, the permittee shall keep up-to-date, readily accessible records of the

installation date and location of all newly installed collectors as specified in 40 CFR 60.755(b).
(9 VAC 5-50-410, 40 CFR 60.758(d))

6. The permittee shall keep for at least five years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR 60.753, the reading in the subsequent month regardless if the second reading is not an exceedance and the location of each exceedance.
(9 VAC 5-50-410, 40 CFR 60.758(e))

7. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the landfill gas collection and control system; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
(9 VAC 5-50-410, 40 CFR 60.7(b))

8. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ, Fredericksburg Office. These records shall include, but are not limited to:

   (a) The yearly throughput of landfill gas, calculated monthly as the sum of each consecutive twelve month period.

   (b) The yearly accumulation of municipal solid waste, calculated monthly as the sum of each consecutive twelve month period.

   (c) The yearly emission of NMOC (as hexane), nitrogen oxides (as nitrogen dioxide), carbon monoxide and sulfur dioxide calculated monthly as the sum of each consecutive twelve month period.

   (d) Scheduled and unscheduled maintenance, and operator training.

   (e) All stack tests, visible emission evaluations and performance evaluations.

   All records required by this condition shall be available for inspection by the DEQ and shall be current for the most recent five years.
   (9 VAC 5-50-50, 9 VAC 5-80-110.E, Condition 16 of 01/19/01 Permit)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30, 9 VAC 5-80-110, 40 CFR 60.8(e)(1), Condition 5 of 01/19/01 Permit)

2. The permittee shall provide safe sampling platforms, safe access to sampling platforms, and utilities for sampling and testing equipment.
(9 VAC 5-50-410, 40 CFR 60.8(e))

3. The nitrogen level at each wellhead shall be determined by using Method 3C; or

   The oxygen level at each wellhead shall be measured with an oxygen meter using Method 3A except for the following:

   (a) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span.

   (b) A data recorder is not required.

   (c) Only a zero and a span calibration gas are required. Ambient air may be used as span.

   (d) A calibration error check is not required.

   (e) The allowable sample bias, zero drift, and calibration drift are " 10%.
   (9 VAC 5-50-410, 40 CFR 60.753(c)(1) and (c)(2))

4. The background concentration of methane during surface emissions monitoring shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least thirty meters from the perimeter wells.
(9 VAC 5-50-410, 40 CFR 60.755(c)(2), Condition 15 of 01/19/01 Permit)

5. Surface emission monitoring shall be performed in accordance with 40 CFR 60 Appendix A, Method 21, Section 4.3.1 except that the probe inlet shall be placed within five to ten centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

(9 VAC 5-50-410, 40 CFR 60.755(c)(3), Condition 15 of 01/19/01 Permit)

6. The portable analyzer used to determine surface methane concentrations shall meet the instrument specifications provided in 40 CFR 60, Appendix A, Method 21, Section 3, except that Amethane@ shall replace all references to VOC. The calibration gas shall be methane with a nominal concentration of 500 ppm with the balance being air. To meet the performance evaluation requirements in section 3.1.3 of Method 21, the instrument evaluation procedures of Section 4.4 of Method 21 shall be used. The calibration procedures in Section 4.2 of Method 21 shall be conducted immediately before commencing a surface monitoring survey.
(9 VAC 5-50-410, 40 CFR 60.755(d), Condition 15 of 01/19/01 Permit)

7. Total landfill gas flow to the control device(s) shall be measured and recorded at a frequency of at least every fifteen minutes using a device calibrated according to the provisions contained in 40 CFR 60, Appendix A, Method 2E, Section 4, or other methods approved by the Administrator.
(9 VAC 5-80-110.E)

8. A visible emission evaluation (VEE) shall be conducted for visible emissions from the open flare to determine compliance with the visible emissions standard in Condition A.10. The test shall be performed to demonstrate compliance no later than 180 days after initial start-up of the approved landfill gas control system. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. Reference Method 22 shall be used. The observation period is two hours and shall be conducted according to Method 22. The details of the tests are to be arranged with the DEQ, Fredericksburg Office. The permittee shall submit a test protocol at least thirty days prior to testing. Two copies of the test results shall be submitted to the DEQ, Fredericksburg Office within forty-five days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30, 9 VAC 5-80-10 J, 40 CFR 60.18(f)(1))

9. Concurrently with the VEE on the open flare, the net heating value of the landfill gas shall be calculated according to the following formula to show compliance with the limitation in Condition A.12:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$ Where:

H_T = net heating value of the sample, MJ/scm; where the net enthalpy per mole of landfill gas is based on combustion at 25°C and 760 mm Hg, but the standard

temperature for determining the volume corresponding to one mole is 20°C.

K = constant, 1.740×10^{-7} (1/ppm)(g-mole/scm)(MJ/kcal) where the standard temperature for (g-mole/scm) is 20°C.

C_i = Concentration of sample component i in ppm on a wet basis as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-90 (incorporated by reference as specified in 40 CFR 60.17)

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D4809-95 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated, or other methods approved by the Administrator.

(9 VAC 5-50-410, 40 CFR 60.18(f)(3))

10. Concurrently with the VEE on the open flare, the actual exit velocity of the open flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C or 2D, or other methods approved by the Administrator as appropriate, by the unobstructed (free) cross sectional area of the flare tip.
(9 VAC 5-50-410, 40 CFR 60.18(f)(4))

11. No later than 180 days after initial startup of the enclosed flare(s), initial performance test(s) shall be conducted on the enclosed flare exhaust stack to determine compliance with the emission limitations specified in Conditions A.2 and or A.16 as follows: NMOC reduction efficiency or outlet concentration level (%, ppmv) and NMOC, nitrogen oxides (as nitrogen dioxide), carbon monoxide and sulfur dioxide emission rates (lb/hr). The stack tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The NMOC emission rate, as hexane, shall be determined using the procedures in 40 CFR Part 60, Appendix A, Method 25, 25A, or 18, or other methods approved by the Administrator. If using Method 18, the minimum list of compounds to be tested for shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The rate of emission of nitrogen oxides, carbon monoxide and sulfur dioxide shall be determined using the procedures in 40 CRF Part 60, Appendix A, Method 7, Method 10 and Method 6, respectively, or other methods approved by the Administrator. The details of the tests are to be arranged with the

DEQ, Fredericksburg Office. The permittee shall submit a test protocol at least thirty days prior to testing. Two copies of the test results shall be submitted to the DEQ, Fredericksburg Office, within forty-five days after test completion and shall conform to the test report format enclosed with this permit.
(40 CFR 60.754(d), 9 VAC 5-50-30, 9 VAC 5-80-110.E, Condition 11 of 01/19/01 Permit)

12. Concurrently with the initial performance tests on the enclosed flare(s), Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on the enclosed flare exhaust stack to determine compliance with the visible emission limitation specified in Condition A.16. The VEE test shall consist of ten sets of twenty-four consecutive observations (at fifteen second intervals) to yield a six minute average. The details of the tests are to be arranged with the DEQ, Fredericksburg Office. The evaluation shall be performed no later than 180 days after initial start up of the enclosed flare. Should conditions prevent concurrent opacity observations, the DEQ, Fredericksburg Office, shall be notified in writing, within seven days, and visible emissions testing to be rescheduled within thirty days. A rescheduled VEE shall be conducted under the same conditions (as possible) as the initial performance test(s). Two copies of the test result shall be submitted to the DEQ, Fredericksburg Office, within forty-five days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30, Condition 11 of 01/19/01 Permit)

13. For the first two quarters following the initial performance testing of the enclosed flare, in addition to reporting required by Subpart WWW (40 CFR 60.757), the operator of the MSW Landfill Facility, owner or permittee shall conduct quarterly sampling and analysis for constituent gases in the LFG Collection and Control System headers between the centrifugal blower discharge and upstream of the inlet to the enclosed flare system. In addition, the operator, owner, or permittee will conduct annual gas chromatograph (GC) sampling of the gas stream effluent from the enclosed flare system. In accordance with a methodology to be agreed upon by Fredericksburg Office of the DEQ, the operator of the MSW Landfill Facility, owner or permittee shall report gas stream sampling or parametric measurements necessary to demonstrate compliance with the emissions limitations specified in Condition A.15. Upon review of the first two quarterly analysis', the Fredericksburg Office of the DEQ shall make a determination as to the necessity for additional constituent gas sampling.
(9 VAC 5-50-30, Condition 12 of 01/19/01 Permit)

14. All monitoring equipment required to comply with Subpart WWW (subsection 60.756) shall be installed and operational within 180 days of the date of initial operation of the landfill LFG Collection and Control System. Performance evaluation of the monitoring equipment shall take place during the initial performance test under Subpart WWW (40 CFR 60.752 and 40 CFR 60.754) or within thirty days thereafter. Two copies of the performance evaluation report shall be submitted to the Fredericksburg Office of the DEQ within forty-five days of the initial performance evaluation. Verification of satisfactory operation of monitoring equipment shall, at a minimum, include certification that manufacturer's written requirements or recommendations for installation, operation and calibration of the device have been followed.
(9 VAC 5-50-40 B, Condition 13 of 01/19/01 Permit)

E. Reporting

1. The permittee shall submit annual records reporting instances when positive pressure at a wellhead occurred due to efforts to avoid a fire. If no such instances occurred, the permittee shall inform the DEQ in writing that no such instances occurred.
(9 VAC 5-50-410, 40 CFR 60.753(b)(1))

2. Within 180 days after installation and start-up of the collection and control system and annually thereafter, the permittee shall submit reports of the following information:

   (a) For the wellheads, the value of and period of time during which an exceedance in well pressure, temperature, and nitrogen or oxygen was measured.

   (b) For the control device bypasses, the value and period of time during which landfill gas flows to the bypass or period of time during which the bypass valve is unlocked.

   (c) For the open flare, the period of time during which the flame or pilot light was not detected for a period exceeding one hour in length.

   (d) For the enclosed flare(s), the periods of time during which the three hour average combustion temperature falls more than 28 EC below the three hour average combustion temperature observed during the flares most recent performance test.

   (e) Description and duration of all periods of time when the control device(s) were not operating properly for a period exceeding one hour in length.

(f) Description and duration of all periods of time when the collection system was not operating for more than five days.

(g) Location and concentration of each exceedance over the 500 ppm surface methane standard and the concentration recorded the previous monitoring event at the same location.

(h) Date of installation and the location of each well or collection system expansion undertaken due to exceedances of oxygen, nitrogen, or pressure, the age of the initial solid waste placed in a cell or group of cells or due to exceedances of surface methane concentrations.

(9 VAC 5-50-410, 40 CFR 60.757(f))

3. The following information shall also be submitted with the initial report due within 180 days after installation and start-up of the collection and control system(s):

(a) The performance test reports for the open and enclosed flare(s);

(b) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, any areas excluded from collection and the proposed sites for the future collection system expansion.

(c) The data upon which the determination for sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and mover equipment sizing are based;

(d) Documentation as to the presence of any asbestos or non-degradable material such as incinerator ash in each area of the landfill for which collection wells have been excluded based on the presence of these materials.

(e) A summation of the gas generation flow rate(s) for each section of the landfill, if any, that have been excluded from the collection system based on non-productivity.

(f) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill.

(g) Provisions for the control of off-site gas migration.
(9 VAC 5-50-410, 40 CFR 60.757(g))

4. The permittee shall furnish written notification to the DEQ, Fredericksburg Office of:

(a) The anticipated start-up date of the enclosed flare postmarked no more than sixty days nor less than thirty days prior to such date.

(b) The actual start-up date of the enclosed flare postmarked within fifteen days after such date.

(c) The anticipated date of the initial performance test of the enclosed flare system, postmarked not less than thirty days prior to such date.
(9 VAC 5-50-50, 9 VAC, 40 CFR 60.7, Condition 17 of 01/19/01 Permit)

F. Requirements for Landfill Closure

1. The collection and control system may be capped or removed provided that all the following conditions are met:

(a) The landfill shall be a closed landfill. A closed landfill is defined as a landfill in which solid waste is no longer being placed and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed in the General Provisions of 40 CFR 60. A closure report shall be submitted to DEQ, Fredericksburg Office as detailed in Condition F.3.

(b) The collection and control system shall have been operating at least fifteen years.

(c) The calculated NMOC gas production, based on testing of actual flow rate and concentration of NMOCs at the main gas header, shall be less than fifty megagrams per year on three successive test dates. The test dates shall be no less than ninety days apart and no more than 180 days apart.
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(v), 40 CFR 60.754(b))

2. The permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed using the following equation:

$M_{nmoc} = 1.89 \times 10^{-3} Q_{lfg} \times C_{nmoc}$ where:

M_{nmoc} = mass emission rate of NMOC, Mg/year
Q_{lfg} = flow rate of landfill gas, cubic meters/minute
C_{nmoc} = NMOC concentration, ppmv as hexane

(a) Q_{lfg} shall be determined by measuring the total landfill gas flow rate at the common header pipe to the control device using a gas flow measuring device calibrated according to the provisions of 40 CFR 60, Appendix A, Method 2E, Section 4.

(b) C_{nmoc} shall be determined by collecting and analyzing landfill gas sampled from the common header pipe using Method 25C or Method 18. If using Method 18, the minimum list of compounds analyzed for shall be those published in the most recent version of AP-42. The sample location on the common header pipe shall be before any condensate removal or refining units. The permittee shall divide the NMOC concentration from Method 25C by six to convert from C_{nmoc} as carbon to C_{nmoc} as hexane.

(c) The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the administrator.
(9 VAC 5-50-410, 40 CFR 60.754(b))

3. The permittee shall submit a closure report to DEQ within thirty days of waste acceptance cessation. DEQ may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the DEQ, no additional wastes may be placed into the landfill without filing a notification of modification. (9 VAC 5-50-410, 40 CFR 60.757(d))

4. The permittee shall submit an equipment removal report to the DEQ thirty days prior to removal or cessation of operation of the control equipment. The report shall contain the following:

(a) A copy of the closure report.

(b) A copy of the initial performance test report demonstrating that the fifteen year minimum control period has expired.

(c) Dated copies of three successive NMOC emission rate reports demonstrating the

landfill is no longer producing fifty Mg or greater of NMOC per year.

DEQ may request additional information to verify that all conditions for removal have been met.
(9 VAC 5-50-410, 40 CFR 60.757(e))

IV. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
P002	diesel storage tank	5-80-720.A.25	VOC	10,000 gal
P003	oil recovery tank	5-80-720.C.3	VOC	500 gal
P004	leachate tank	5-80-720.B.2	VOC	250,000 gal
P005	leachate tank	5-80-720.B.2	VOC	250,000 gal
F001	emergency generator	5-80-720.C.1.a	NOx	55 kW

[1]The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption and with the exception of the single record keeping requirement below, no monitoring, other record keeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

A. Leachate Storage Tanks Requirement - (Emission Units P004 & P005)

Record Keeping

1. The permittee shall keep readily accessible records showing the dimensions of the leachate storage tanks and their storage capacities. These records shall be kept for the life of the leachate storage tanks.
(9 VAC 5-50-410 , 40 CFR 60.116b(b)

V. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of applicability
9 VAC 5 Chapter 40 Part II Article 43	Emission Standards for MSW Landfills	Emission standard for non-WWW landfills

Nothing in this permit shield shall alter the provisions of ' 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to ' 114 of the federal Clean Air Act, (ii) the Board pursuant to ' 10.1-1314 or ' 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to ' 10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

VI. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit shall become invalid five years from the date of issuance. The permittee shall submit an application for renewal of this permit no earlier than eighteen months and

no later than six months prior to the date of expiration of this permit. Upon receipt of a complete and timely application for renewal, this source may continue to operate subject to final action by the DEQ on the renewal application.
(9 VAC 5-80-110 D and 9 VAC 5-80-80 F)

C. Record Keeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F, Condition 25 of 01/19/01 Permit)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   1. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

2. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

   (a) exceedance of emissions limitations or operational restrictions;

   (b) excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates and exceedance of emission limitations or operational restrictions; or

   (c) failure to meet monitoring, record-keeping, or reporting requirements contained in this permit.

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to ' 114(a)(3) and ' 504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for

determining the compliance status of the source at the time of certification and over the reporting period.

5. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.
(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify DEQ, Fredericksburg Office within four daytime business hours of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as defined in this permit. In addition, within fourteen days of the occurrence, the permittee shall provide a written statement explaining the problem, any corrective actions or preventive measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the annual report required under condition III.E.2. of this permit.
(9 VAC 5-80-110 F.2)

F. Failure/Malfunction Reporting

If, for any reason, the affected facilities or related air pollution control equipment fails or malfunctions and may cause excess emissions for more than one hour, the owner shall notify DEQ, Fredericksburg Office, within four daytime business hours of the occurrence. In addition, the owner shall provide a written statement, within fourteen days, explaining the problem, corrective action taken, and the estimated duration of the breakdown/shutdown.
(9 VAC 5-80-250)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Action for Cause

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
   (9 VAC 5-80-110 G.4, Condition 20 of 01/19/01 Permit)

2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:

   a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is the potential of,

a resulting emissions increase;

b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;

c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emission cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;

d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;

e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, record keeping, and reporting;

f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);

g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and by 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.

(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the board, within a reasonable time, any information that the board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6, Condition 24 of 01/19/01 Permit)

2. Any document (including reports) required in a permit condition to be submitted to

the board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited, to the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and

5. The prompt removal of spilled or traced dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 or 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

No violation of applicable emission standards or monitoring requirements shall be judged to have taken place if the excess emissions or cessation of monitoring activities is due to a malfunction, provided that:

1. The procedural requirements of this section are met or the owner has submitted an acceptable application for a variance, which is subsequently granted;

2. The owner has taken expedient and reasonable measures to minimize emissions during the breakdown period;

3. The owner has taken expedient and reasonable measures to correct the malfunction and return the facility to a normal operation; and

4. The source is in compliance at least 90% of the operating time over the most recent 12-month period.

(9 VAC 5-50-20)

P. Shutdown and/or Bypass of Pollution Control Equipment

The permittee shall furnish notification to the Fredericksburg Office of the DEQ of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:

a. Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number;
b. The expected length of time that the air pollution control equipment will be out of service;

c. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period;

d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(VAC 5-20-180 B, Condition 18 of 01/19/01 Permit)

Q. Reduction in Level of Operation or Shut Down of Facility

The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-20-180 I)

R. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80 Article 1.
(9 VAC 5-80-110 J)

S. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon, at reasonable times, the premises on which the source is located or emissions-related activity is conducted, or where records must be kept under the

terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2, Condition 22 of 01/19/01 Permit)

T. Reopening For Cause

The permit shall be reopened by the board if additional federal requirements become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.
(9 VAC 5-80-110 L)

U. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E, Condition 26 of 01/19/01 Permit)

V. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
   (9 VAC 5-80-160, Condition 23 of 01/19/01 Permit)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the board of the change in ownership within thirty days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
   (9 VAC 5-80-160, Condition 23 of 01/19/01 Permit)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the board of the change in source name within thirty days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
   (9 VAC 5-80-160, Condition 23 of 01/19/01 Permit)

W. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

d. For malfunctions that occurred for one hour or more, the permittee submitted to the board by the deadlines described in **Failure/Malfunction Reporting** above, a notice and written statement containing a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notice fulfills the requirement of 9 VAC 5-80-110 F.2. b to report promptly deviations from permit requirements.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

(9 VAC 5-80-250)

X. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The board may suspend, under such conditions and for such period of time as the board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-260, Condition 21 of 01/19/01 Permit)

Y. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

Z. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40

CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A - F)

AA. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

BB. Changes to Permits for Emissions Trading

No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

CC. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110 except subsection N shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)